Center for Integrative Coastal Observation, Research and Education (CICORE)

San Jose State University Foundation

CICORE is dedicated, through a combined program of research, education and public outreach, to addressing California coastal research, regulatory and management issues to ensure sustainable use of the coastal zone. Taking advantage of the statewide distribution of California State University (CSU) campuses, CICORE promotes three core technologies to develop a distributed, yet integrated, coastal monitoring observatory focused on the critically impacted region from the 100 meter isobath into, and onto, the shore and estuaries. These technologies include (1) high-resolution seafloor bathymetry and habitat mapping, (2) hyperspectral imaging of benthic, shallow water and coastal environments to improve resource management in critical coastal and wetlands areas and (3) *In situ* monitoring at fixed locations to provide a state-wide observatory of time-varying water quality parameters. In addition to serving the state needs, CICORE is integrated with other observatory programs locally, regionally and nationally to help satisfy the mandate of the US Integrated and Sustained Ocean Observing System (IOOS) as articulated by Ocean.US and other state and federal programs. This program contributes to California's national leadership in promoting these mandates.

Accomplishments to date:

- First high-resolution bathymetric survey of the entrance of the Golden Gate conducted since the 1950s.
- Documentation of sediment erosion and deposition in the Monterey Submarine Canyon head.
- Co-location of bathymetric and hyperspectral imagery for creating bathymetry and bottom type maps to from deep water in to the shoreline.
- Hyperspectral imaging of 5460 km^2 at seven sites to bring the total area of hyperspectral imaging to 9775 km^2 of coastal and shallow water areas.
- Incorporation of a multispectral imager with four times greater spatial resolution with the hyperspectral imager.
- Development of a kelp coverage product and increased wetlands hyperspectral coverage.
- Expansion of *in situ* monitoring from four to six sites with the inclusion of South San Francisco Bay and Long Beach Harbor.
- Data delivery structured to conform to Ocean.US Data Management and Communications Steering Committee recommendations, including FGDC compliant metadata and adopting the Marine Extension of CDL form.
- Increase the number of partner members from eight to 10 with the inclusion of CSU Long Beach and San Diego State University.
- Restructuring of the governance to include both a board of directors whose members are the presidents of the participating California State University campuses and an advisory council whose membership represents a broad spectrum of external scientific experts, official representatives of local, regional, state and federal governmental organizations, and interested non-governmental organizations.